

WHAT IS CLAIMED IS:

1. A system for using a user-mode module to kernel-mode driver interface to send commands to and receive information from a kernel-mode WWAN device driver comprising:
 - a user-mode entity;
 - a first set of object identifiers (OIDs) sendable by the user-mode entity, through a user-mode module to kernel-mode driver interface, to the WWAN device driver; and
 - a second set of OIDs receivable by the user-mode entity, through a user-mode module to kernel-mode driver interface, from the WWAN device driver;wherein, after sending an OID from the first set, the user-mode entity is permitted to send OIDs to the WWAN device driver through the user-mode module to kernel-mode driver interface, prior to receiving a response from the WWAN device driver.
2. The system of claim 1 wherein the WWAN device driver controls a GSM-based device.
3. The system of claim 1 wherein the WWAN device driver controls a CDMA-based device.
4. The system of claim 1 wherein the WWAN device driver controls a CDMA or GSM-based device.
5. The system of claim 1 wherein the second set of OIDs comprises OIDs for indicating to the user-mode entity that a WWAN device associated with the WWAN device driver has been provisioned by a WWAN service provider.
6. The system of claim 1 wherein the first and second sets of OIDs comprise OIDs for authentication with information from a SIM.
7. The system of claim 1 wherein the first and second sets of OIDs comprise OIDs for authentication with a PIN.

8. The system of claim 7 wherein the PIN is used in conjunction with a voice call.
9. The system of claim 1 wherein the first and second sets of OIDs comprise OIDs for managing a signal strength range threshold.
10. The system of claim 9 wherein the first set of OIDs comprises OIDs sendable by the user-mode entity to establish a signal strength range threshold, and wherein the second set of OIDs comprises OIDs receivable from the WWAN device driver for indicating the signal strength is outside the established signal strength range threshold.
11. The system of claim 1 wherein the first and second sets of OIDs comprise OIDs for managing a signal strength reporting interval.
12. The system of claim 11 wherein the first set of OIDs comprises OIDs sendable by the user-mode entity to establish a signal strength reporting interval, and wherein the second set of OIDs comprises OIDs receivable from the WWAN device driver with the minimum frequency of the established signal strength reporting interval.
13. A method for managing the signal strength of a WWAN device using OIDs sent through a user-mode module to kernel-mode driver interface, the method comprising:
 - sending an OID to establish a signal strength range threshold; and
 - receiving an OID reporting a signal strength of the WWAN device that is outside the established signal strength range threshold.
14. The method of claim 13 further comprising sending an OID to adjust the signal strength range threshold.
15. The method of claim 13 further comprising determining, by a WWAN device driver in connection with the WWAN device, that the signal strength of the WWAN device is outside the established signal strength range threshold.

16. A method for a user-mode entity to initialize a WWAN device driver using OIDs sent through a user-mode module to kernel-mode driver interface, the method comprising:
- sending and receiving OIDs to query the device driver in connection with the WWAN device for information about media supported by the device;
 - sending an OID to set a range of configuration service versions supported by the user-mode entity;
 - sending and receiving OIDs to query the device driver for a range of configuration service versions supported by the device driver; and
 - sending and receiving OIDs to query the device driver for capabilities of the device driver.
17. The method of claim 16 wherein the WWAN device driver controls a GSM-based device.
18. The method of claim 16 wherein the WWAN device driver controls a CDMA-based device.
19. A method for a user-mode entity to initialize a WWAN device using OIDs sent through a user-mode module to kernel-mode driver interface, the method comprising:
- initializing a device driver in connection with the WWAN device;
 - sending an OID to initialize a protocol stack;
 - receiving an OID indicating that the device driver is in a ready state;
 - sending an OID to power a transceiver and attempt registration;
 - sending an OID to establish a context; and
 - receiving an OID indicating that the device is connected and ready for a communications session.
20. The method of claim 19 further comprising receiving an OID from the device driver indicating whether or not a PIN is required.

21. The method of claim 20 wherein the user-mode entity sends an OID containing a PIN if a PIN is required.
22. The method of claim 19 further comprising receiving an OID indicating that the device driver is searching for a provider.
23. The method of claim 22 further comprising receiving an OID indicating that the device driver has packet attached.
24. The method of claim 19 further comprising sending an OID requesting a list of provisioned contexts.
25. The method of claim 24 further comprising receiving an OID with a list of provisioned contexts.
26. The method of claim 19 wherein the WWAN device is a GSM-based device.
27. The method of claim 19 wherein the WWAN device is a CDMA-based device.